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(21) International Application Number: PCT/GB00/00258 (22) International Filing Date: 28 January 2000 (28.01.00) (30) Priority Data: 9902055.4 29 January 1999 (29.01.99) GB (71) Applicant (for all designated States except US): THE UNIVERSITY OF SHEFFIELD [GB/GB]; Western Bank, Sheffield S10 2UH (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): ADAMO, Mauro, Francesco, Alessio [GB/GB]; University of Sheffield, Department of Chemistry, Dainton Building, Sheffield S3 7HF (GB). AGGARWAL, Varinder, Kumar [GB/GB]; University of Sheffield; Department of Chemistry, Sheffield S3 7HF (GB). (74) Agent: RUTTER, Keith; SmithKline Beecham Corporate Intellectual Property, Two Intellectual Property, Brentford, Middlesex TW8 9EP (GB).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: EPOXIDATION PROCESS USING AMINE CATALYSTS <div style="display: flex; justify-content: space-around; align-items: center;"><div data-bbox="354 1165 609 1270"><p style="text-align: center;">(I)</p></div><div data-bbox="824 1186 1015 1270"><p style="text-align: center;">(a)</p></div></div> (57) Abstract <p>A process for the epoxidation of an alkene, which process comprises reaction of an alkene with an oxidising agent in the presence of a catalyst, characterised in that the catalyst is an amine of formula (I), wherein T represents hydrogen or a moiety of formula (a); R¹, R², R³, R⁴, R⁵ and R⁶ each independently represents hydrogen, optionally substituted alkyl, an optionally substituted aryl group, heterocyclyl or an optionally substituted aralkyl group wherein substituents for the above mentioned groups are selected from up to three of alkyl, aryl, heterocyclyl, hydroxy, alkoxy or a group NR³R⁴ wherein R³ and R⁴ each independently represents hydrogen, alkyl or alkylcarbonyl and R⁷ represents hydrogen, alkyl, aryl or aralkyl; or T represents a moiety (a) wherein R¹ together with R² represents an optionally substituted alkylene chain comprising 2 to 6 carbon atoms the alkylene chain being optionally interrupted with an oxygen atom or a group NRP wherein R^P is hydrogen or alkyl, and wherein optional substituents for any carbon atom of the alkylene chain are selected from hydroxy, alkoxy, oxo or a group NR³R⁴ wherein R³ and R⁴ each independently represents hydrogen, alkyl or alkylcarbonyl or substituents on any two adjacent carbon atoms of the chain together with the carbon atoms to which they are attached form an alicyclic, aryl or heterocyclic ring; and R³, R⁴, R⁵, R⁶ and R⁷ are as defined above.</p>		

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